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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

VO, ANH T N

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 07/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
10/044,281

Applicant(s)
USUI ET AL.

Examiner
Anh T. N. Vo

Art Unit
2861



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Preliminary filed on 05/23/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 1, 6 & 8 6) ☐ Other:

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DETAILED ACTION

Acknowledgement is made of the receipt of Preliminary Amendment filed 23 May 2003.

Oath/Declaration

The declaration filed 17 September 2002 is acceptable.

Information Disclosure Statement

The references cited on PTO 1449 have been considered.

Specification

The specification has been checked to the extent necessary to determine the presence of all possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

CLAIM REJECTIONS

Claim Rejections - 35 U.S.C. § 112

Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Appropriate correction or clarification is required.

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In claim 1, it is unclear how the first and second distances can be measured or defined since they are not clearly recited, how the recitation “inner opening”, “outer opening”, “first distance” and “second distance” is read on the preferred embodiment. Insofar as understood, no such limitation can be determined on the drawings. The recitation “one wall” on line 6 is confusing because it is unclear if this is an additional “one wall” or a further recitation of the previously claimed “one wall” on line 2.

In claim 6, it is not understood how the ink supply port can perform the compressing function since its function is only to provide a flow path for ink.

In claim 7, it is unclear how the recitation “each of . . . ink chamber” is read on the preferred embodiment. Insofar as understood, no such limitation can be determined on the drawings. The same is true for claims 7-11.

In claim 8, the recitation “said angled surface” lacks antecedent basis. The same is true for reciting “said protrusion member”, “said projecting edges” or “said filter” in claims 10 and 11.

In claim 9, it is unclear how the recitation “said inner surface of the port is entirely angled” is read on the preferred embodiment. Insofar as understood, no such limitation can be determined on the drawings.

In claim 12, the recitation “can” on line 8 is indefinite because it does not positively recite the claimed invention. The same is true for claim 13.

In claim 13, it is unclear how the recessed portions can offset one from another to absorb in array pitch, what the array pitch is and how the recitation “through-holes, each . . . respectively” on lines 9-12 is read on the preferred embodiment. Insofar as understood, no such limitation can be determined on the drawings. The same is true for claims 14 and 20-22.

In claim 14, the recitation “their axis” lacks clear antecedent basis. It is unclear what the axis is and how it can be defined.

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In claim 15, it is not understood what is meant by “each one . . . ports” on lines 1-2.

In claim 16, it is unclear how the recitation “ribs” is read on the preferred embodiment or seen on the drawings. The same is true for claim 28.

The remaining claims include a number of antecedent basis problems and unclear recitation as discussed above. They should be reviewed and clarified.

Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

Claims 1-4 and 6-29 are rejected under 35 U.S.C. 102 (e) as being anticipated by Shinnada et al (US 6,302,530).

Shinnada et al discloses in Figures 10(a)- 10(b) an ink cartridge (41) comprising:

- a housing (46) having at least one wall (48) (Figure 10a);
- at least two ink chambers (42a-42d) for containing different ink accommodate in said housing (46) (Figure 10b);

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- ink supply ports (50a-50d) in said wall and each opt having an inner opening and outer opening (Figure 10b);
- porous members (59) impregnated with ink and fitted in each of said chambers (42a-42d) and engaging with said ink supply port (50a-50d) through said ink supply passage (Figure 10b);
- wherein a first distance from the inner openings is greater than second distance from the outer openings (Figure 10b); and
- a partition wall (43) dividing the ink cartridge main body (41) into a plurality of ink chambers (42a-42d) having respective ink outflow ports (50a-50d);
- wherein the inner surface of the ink supply port is entirely angled as shown in Figures 10(a)-10(b) of Shinnada et al because the inner openings are smaller than the outer openings.

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable Shinnada et al (US 6,302,530).

Shinnada et al discloses in Figures 10(A)-10 (B) an ink cartridge comprising all of the limitations of the claimed invention but does not disclose that the ink chamber includes five ink


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chambers. For example, the ink cartridge of Shinnada et al has four chambers. Since the ink cartridge of Shinnada et al is a color cartridge, a skill artisan recognizes that it can include another ink chamber for containing one more ink color to enrich the printing. Thus, adding one more ink chamber would have been obvious to an engineer and is considered to be a matter of a design-expedient for the engineer depending upon a particular application in which the cartridge of Shinnada et al is to be used. It would have been obvious to a person having skill in the time the invention was made to add one more ink chamber to the cartridge of Shinnada et al for the purpose of adding another color to the printing.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo. whose telephone number is (703) 305-8194. The examiner can normally be reached on Tuesday to Friday from 8:00 A.M. to 6:00 P.M. The fax number of this Group 2861 is (703) 305-3431 or 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



ANH T.N. VO
PRIMARY EXAMINER

June 26, 2003